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STATUS OF THE OBER TOBAGO COLLECTION, SMITHSONIAN INSTITUTION, AND THE PROPER ALLOCATION OF *AMIVA SURANAMENSIS TOBAGANUS* COPE (SAURIA: TEIIDAE)[1]

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Cope (1879:276) reported upon 36 amphibians and reptiles, supposedly from Tobago, West Indies, sent to the Smithsonian Institution by Frederick A. Ober, an amateur ornithologist collecting throughout the Lesser Antilles for the Institution.

Cope identified the single frog represented in Ober's collection as *Hylodes* (=*Eleutherodactylus*) *martinicensis*, USNM 10121. Although Barbour (1916) and Mertens (1969) doubted the correctness of Cope's assignment, we have carefully examined the specimen in question, and we concur with Cope's identification. However, *E. martinicensis* is known only from Martinique, Dominica, Guadeloupe, and Antigua (Schwartz, 1967:32). Our own investigations on Tobago, 1970–1972, have failed to produce a specimen of this species. Ober (1880:123) mentioned the nocturnal din of frogs on Dominica and described encountering the small creature producing the noise. For no other island did he remark on the frogs, and it is logical to assume the example in question originated there.

Thirty-one of Ober's specimens are anoles, referred by Cope to *Anolis alligator* (= *Anolis roquet roquet*), USNM 10102–12, 10114–15, 10117–20, and 10123–36. Cope's assignment

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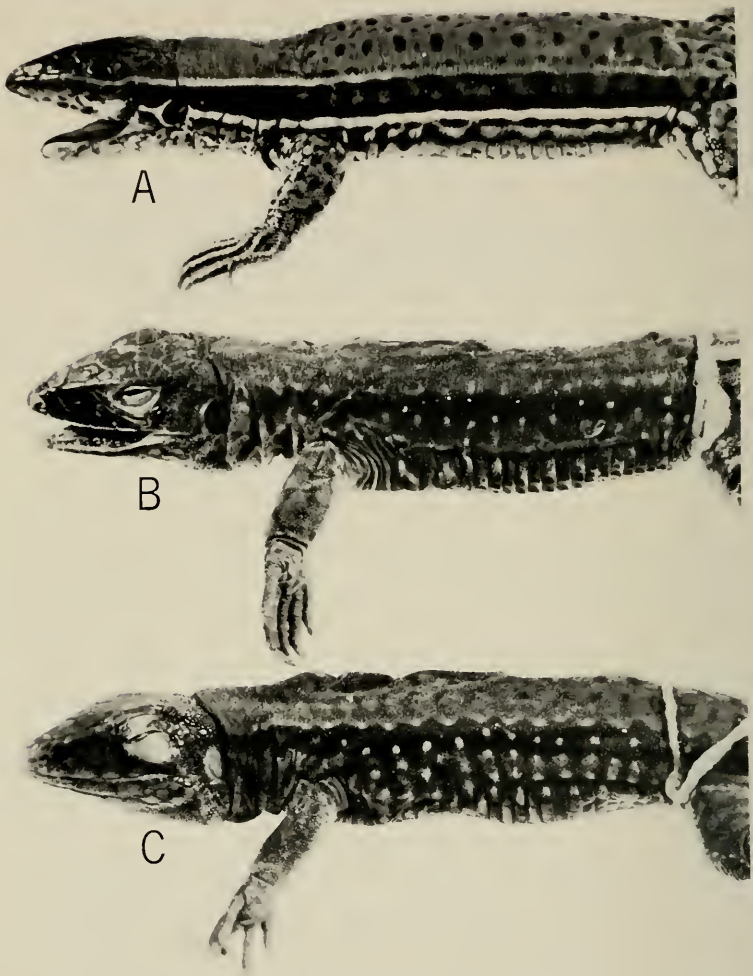

FIG. 1. *Ameiva ameiva* from southeastern Caribbean islands. A. USNM 167481, Charlotteville, St. John Parish, Tobago, 106.2 mm. B. USNM 101113, holotype of *Ameiva surinamensis tobaganus*, 89.0 mm. C. USNM 43222, topotype of *Ameiva aquilina*, St. George, Grenada, 87.1 mm.

stands, but this form is known only from Martinique (Gorman and Atkins, 1969).

Two of Ober's specimens are *Bothrops lanceolatus*, USNM 10116 and 10122, a species also endemic to Martinique (La-

zell, 1964). In point of fact, Ober (1879:450; 1880:319) described the capture and preservation in rum of these two examples on Martinique after he had left Tobago.

A snake, USNM 10137, Cope identified as *Drymobius* (= *Mastigodryas*) *boddaertii*. Stuart (1938:7) designated this specimen a paratype of his *Eudryas amarali*, a species otherwise known to inhabit "Margarita Island and dry areas in northeastern Venezuela" (Peters and Orejas-Miranda, 1970: 191). We have examined this individual, as well as the holotype of *E. amarali*, USNM 22534. These two specimens do not appear to belong to the same population, and we agree with Brongersma (1956:178) that it is difficult to form a definite opinion as to the identity, or provenance, of the "Tobago" specimen, which now lacks a clear pattern. In some respects USNM 10137 resembles *Mastigodryas bruesi*, another member of Stuart's (1941) *pleei* group known from Grenada, St. Vincent, and the Grenadines. As pointed out below, Ober spent considerable time on these islands. Aside from the single supposed example of *M. amarali*, the only other representative of *Mastigodryas* known to inhabit Tobago is the endemic *M. boddaerti dunni* (Stuart, 1933) (Peters and Orejas-Miranda, 1970: 193). We have examined two recently collected examples of this genus, one each in the American Museum of Natural History, AMNH 108743, and the National Museum of Natural History, USNM 195126. Both specimens appear best to fit the description of *M. b. dunni*.

There remains a single lizard, USNM 10113, which Cope described as *Amiva suranamensis tobaganus*. Subsequent authors have referred all Tobago *Ameiva* to Cope's taxon. Barbour and Noble (1915:459) recognized *tobagana* as a full species distinct from the Trinidad representative, *Ameiva atrigularis* Garman 1887. They based their decision upon a photograph of Cope's holotype supplemented by a description of the specimen supplied by Leonhard Stejneger. They had no examples available for their own examination. Later, Barbour (1916:223) reported a series of specimens from Milford scription or with the type. Brongersma (1956:167) concluded Bay, Tobago, but he did not compare them with Cope's de-

TABLE 1.

Museum number (USNM)	Locality	Subspecies	Sex	Snout/vent length	Upper labials	Lower labials	Femoral pores	Lamellae fourth toe	Ventral lateral series	Ventral transverse series
10113	Uncertain (see text)	*tobagana* (holotype)	female	89.0	7/7	7/6	17/17	37	32	12
17721	Trinidad	*atrigularis*	male	156.0	6/6	6/5	16/17	32	30	12
17722	Trinidad	*atrigularis*	male	116.0	6/6	6/6	17/18	35	32	10
17723	Trinidad	*atrigularis*	female	120.0	6/6	5/5	18/19	35	33	10
17724	Trinidad	*atrigularis*	female	123.0	7/6	6/5	16/17	35	31	10
166635	Trinidad, Maracas	*atrigularis*	male	130.0	6/6	5/5	17/18	35	31	10
166636	Trinidad, Maracas	*atrigularis*	male	107.6	6/6	6/5	16/17	35	32	10
166637	Trinidad, Maracas	*atrigularis*	female	95.6	6/6	6/5	17/17	36	31	10
166638	Trinidad, Maracas	*atrigularis*	male	116.8	6/6	5/6	17/16	33	30	10
166639	Trinidad, Maracas	*atrigularis*	juvenile	89.5	6/6	5/5	17/17	36	31	10
167481	Tobago, Charlotteville	*atrigularis*	female	106.2	6/6	6/5	19/20	39	32	10
195008	Tobago, Charlotteville	*atrigularis*	juvenile	47.5	6/6	6/5	19/16	39	30	10
195009	Tobago, Roxborough	*atrigularis*	male	116.2	6/6	6/6	19/19	37	30	10

TABLE 1. (Continued)

Museum number (USNM)	Locality	Subspecies	Sex	Snout/ vent length	Upper labials	Lower labials	Femoral pores	Lamellae fourth toe	Ventral lateral series	Ventral transverse series
195072	Tobago, Charlotteville	*atrigularis*	male	136.0	6/6	6/5	20/22	40	31	10
195073	Tobago, Charlotteville	*atrigularis*	female	126.8	6/6	6/6	18/18	38	30	10
195074	Tobago, Charlotteville	*atrigularis*	male	127.4	6/6	5/6	16/18	37	30	10
195075	Tobago, Charlotteville	*atrigularis*	female	115.8	6/6	6/6	19/19	37	31	10
195076	Tobago, Charlotteville	*atrigularis*	male	115.9	6/7	5/7	18/19	37	32	10
195077	Tobago, Charlotteville	*atrigularis*	female	115.1	6/6	6/5	19/18	36	32	10
195078	Tobago, Charlotteville	*atrigularis*	juvenile	76.5	6/6	5/6	19/20	38	31	10
195079	Tobago, Charlotteville	*atrigularis*	female	116.9	6/6	5/5	21/21	39	30	10
195080	Tobago, Charlotteville	*atrigularis*	male	147.7	6/6	6/5	20/19	40	31	10
195081	Togabo, Charlotteville	*atrigularis*	male	134.0	6/6	5/5	19/18	39	31	10
195082	Tobago, Charlotteville	*atrigularis*	female	124.5	6/6	6/5	18/18	39	31	10

TABLE 1. (Continued)

Museum number (USNM)	Locality	Subspecies	Sex	Snout/vent length	Upper labials	Lower labials	Femoral pores	Lamellae fourth toe	Ventral lateral series	Ventral transverse series
195083	Tobago, Charlotteville	*atrigularis*	juvenile	86.0	6/6	5/6	20/20	37	32	10
195084	Tobago, Charlotteville	*atrigularis*	juvenile	81.5	6/6	6/5	18/20	41	32	10
195085	Tobago, Charlotteville	*atrigularis*	male	126.1	6/6	5/6	20/19	35	31	10
195086	Tobago, Charlotteville	*atrigularis*	male	126.4	6/6	5/5	20/20	39	31	10
195087	Tobago, Charlotteville	*atrigularis*	female	111.1	6/6	6/6	17/17	38	31	10
195088	Tobago, Charlotteville	*atrigularis*	male	167.0	6/6	5/5	19/19	40	28	10
195089	Tobago, Charlotteville	*atrigularis*	male	141.9	6/6	6/6	19/19	37	31	10
195090	Tobago, Charlotteville	*atrigularis*	male	113.5	6/6	6/6	19/18	39	31	10
195091	Tobago, Charlotteville	*atrigularis*	male	134.6	6/6	6/6	19/22	40	30	10
195092	Tobago, Charlotteville	*atrigularis*	female	104.7	7/6	6/5	18/18	40	31	10
195093	Tobago, Charlotteville	*atrigularis*	female	109.3	6/6	6/6	19/19	42	30	10

TABLE 1. (Continued)

Museum number (USNM)	Locality	Subspecies	Sex	Snout/vent length	Upper labials	Lower labials	Femoral pores	Lamellae fourth toe	Ventral lateral series	Ventral transverse series
195094	Tobago, Charlotteville	*atrigularis*	female	122.0	6/6	6/6	19/20	38	31	10
195095	Tobago, Charlotteville	*atrigularis*	male	106.9	6/7	6/5	19/19	41	32	10
43222	Grenada, St. George,	*tobagana*	juvenile	87.1	6/6	6/6	20/20	38	32	10
43223	Grenada,	*tobagana*	juvenile	74.7	6/6	6/6	18/17	37	31	10
79111	Grenadines, Petit Mustique	*tobagana*	male	137.2	7/7	6/6	19/21	38	32	10
79112	Grenadines, Frigate Island	*tobagana*	female	123.7	6/6	7/6	20/21	39	33	12
79147	Grenadines, Frigate Island	*tobagana*	male	138.5	7/6	6/6	19/21	34	32	10
79148	Grenadines, Frigate Island	*tobagana*	male	127.8	7/7	5/5	20/21	33	31	12
79149	Grenadines, Frigate Island	*tobagana*	male	149.5	6/6	6/6	20/21	36	31	10
79194	Grenada, Mineral Springs	*tobagana*	female	95.2	6/7	6/6	18/19	38	31	12
79195	Grenada, Mineral Springs	*tobagana*	male	83.9	7/6	6/6	17/18	35	31	12

TABLE 1. (Continued)

Museum number (USNM)	Locality	Subspecies	Sex	Snout/vent length	Upper labials	Lower labials	Femoral pores	Lamellae fourth toe	Ventral lateral series	Ventral transverse series
104198	Grenadines, Bequia	*tobagana*	male	117.4	7/7	6/6	19/19	38	32	12
104199	Grenadines, Bequia	*tobagana*	male	112.0	7/7	6/6	19/19	37	32	12
104200	Grenadines, Mayreau	*tobagana*	juvenile	75.9	6/6	6/6	19/19	37	32	12
104201	Grenadines, Mayreau	*tobagana*	juvenile	61.9	6/6	6/5	19/20	34	33	10
104202	Grenadines, Union Island	*tobagana*	juvenile	45.5	6/6	5/5	20/21	40	33	10

that the Trinidad and Tobago forms were identical, both representing a single race of the widespread *Ameiva ameiva.* He reasoned that Cope's name took priority over Garman's, the proper designation therefore being *Ameiva ameiva tobagana.* He did not examine the Ober specimen. Baskin and Williams (1966) also did not consider material from Trinidad and Tobago, but they recognized the two islands as being both inhabited by *Ameiva ameiva tobagana.*

Ober collected birds on St. Vincent from October 1877 to February 1878 (Ober, 1879:448–449; 1880:180, 219). He visited at least two of the Grenadines, Balliceaux and Battowia, in February 1878 (Ober, 1880:219–220) and moved to Grenada in early March 1878, where he spent about a month (Ober, 1879:449; 1880:254). In his popular account, Ober (1880) refers to lizards only in his discusson of Grenada, and his description fits well the activities of ameivas: "Especially do they love the cliffs, and if you are walking through the bushes at the base of any sunny precipice, or over any rocky tract, you will be startled by the frequent dashes made by these reptiles across your path" (Ober, 1880:255–256).

We have compared the holotype of *A. a. tobagana* with recently collected specimens of *A. ameiva* from Trinidad and Tobago, and we have found that Ober's specimen does not resemble examples from these two islands. We have also compared Ober's *Ameiva* with specimens of *Ameiva ameiva aquilina* Garman 1887, which inhabits Grenada, St. Vincent, and the Grenadines (Baskin and Williams, 1966:155, Table 16), and we conclude that the holotype of *Ameiva ameiva tobagana* was actually taken from that populaton. A vivid, well-developed lateral white stripe passing through the ear is evident on all recently collected Tobago ameivas but is lacking or poorly developed on Grenada-St. Vincent examples and absent on the holotype of *tobagana* (Fig. 1). Meristic data taken from Ober's specimen and from specimens of *Ameiva* collected on the islands in question are summarized in Table 1. Counts for ventral transverse series are 10 in 100% of specimens known to have been collected on Tobago (27 examples), while the same counts are 12 in 50% of the Grenada-Grenadine speci-

mens at hand (14 examples), as well as for the holotype of *tobagana*. It will be noted that our measurements and counts for the Grenada and Grenadine examples correspond closely with the same figures given for these specimens by Cochran (1934, 1938). Unfortunately, following the laws of priority, ameivas native to St. Vincent, Grenada, and the Grenadines, must henceforth be known as *Ameiva ameiva tobagana* Cope 1879, of which *Ameiva ameiva aquilina* Garman 1887 becomes a junior synonym.

The Trinidad-Tobago form should be designated *Ameiva ameiva atrigularis* Garman 1887, which is the next available name. If further investigation indicates the racial separation of Tobago ameivas from those of Trinidad, then Garman's taxon will refer only to the population inhabiting the larger island, and the Tobago *Ameiva* will require renaming.

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Specimens examined: (All are in National Museum of Natural History, USNM.)

Ameiva amevia atrigularis, 36 specimens: Trinidad: no other data, USNM 17721–24; Maracas, USNM 166635–39.—Tobago: Charlotteville, USNM 167481, USNM 195008, USNM 195072–95; near Roxborough, USNM 195009.

Ameiva ameiva tobagana, 15 specimens: "Tobago" (in error): USNM 10113 (holotype).—Grenada: St. George, USNM 43222–23; Mineral Springs, USNM 79194–95.—Grenadines: Bequia, USNM 104198–99; Frigate, USNM 79112, USNM 79147–49; Mayreau, USNM 104200–01; Petit Mustique, USNM 79111; Union, USNM 104202.

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